REMARKS

Claims 1-17 are pending in the present application. Claims 1, 4-6, 8, 10, 11, 13, and 17 are amended to correct typographic errors and/or clarify the subject matter recited therein. No new matter is added, which find support throughout the specification and figures. In particular, the amendments to claims 1 and 17 are supported at least by original claims 6, 8, 10, and 13. In view of the following remarks, favorable reconsideration of this case is respectfully requested.

Claims 4 and 5 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. In particular, the Examiner objects to these claims for being unclear as to how the determination unit determines a packet discarding priority level of a packet processing unit. Claims 4 and 5 are amended herein to recite "wherein the determination unit *controls the packetizing of the packet processing unit and* determines...." It is respectfully submitted that the claims as presented are definite and allowable, and it is therefore requested that the rejection be withdrawn.

Claims 1-3 and 17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,754,221 to Whitcher et al. (hereinafter referred to as Whitcher). Applicants respectfully traverse.

Claim 1 relates to a gateway apparatus which interconnects a first network and a second network, and which includes, *inter alia*, a network-state estimation unit *determining network-state information of the second network based on packets that are received from a second gateway apparatus via the second network,* and a determination unit controlling, before the transmission of the packets, at least the encoding of the voice data by the encoding processing unit based on the network-state information determined by the network-state estimation unit.

It is respectfully submitted that Whitcher does not disclose or suggest a network-state estimation unit *determining network-state information of the second network based on packets that are received from a second gateway apparatus via the second network*, as recited in amended claim 1.

Whitcher apparently discloses in figure 1 a gateway system for communicating telecommunication information between a telecommunication network 12 and customer premises equipment 14. The Examiner relies upon the illustration of a telecommunication network 12 in figure 1 of Whitcher as allegedly disclosing the claimed first network, and on the illustration of customer premises 14 in figure 1 of Whitcher as allegedly disclosing the claimed second network (Office Action; page 3, lines 3-6). In the system of Whitcher shown in figure 2, the management module 100 apparently determines a bandwidth available to communicate the telecommunication information to the customer premises equipment 14, and selects a compression algorithm according to the available bandwidth.

In addition, Whitcher apparently discloses at col. 8, lines 57-81, that the management module 100 assigns 64 kilobits per second time slots to each subscriber serviced by gateway 18 and stores subscriber profiles associating the assigned time slots with the subscribers in memory 102. Figure 3 of Whitcher shows a table, stored in memory 102, of customer premises information associating each customer premises equipment with bandwidth and compression information. As is apparent from figure 3, the network-state information (bandwidth) as taught by Whitcher is predetermined for each customer premises equipment 14 and stored in memory 102.

However, Whitcher does not disclose determining network-state information of a second

network based on packets that are received from a second gateway apparatus via the second

network. In fact, Whitcher states that:

> FIG. 2 illustrates gateway 18 that selects a compression algorithm
> for compressing telecommunication information communicated
> with customer premises equipment 14 *according to an available
> bandwidth*. Gateway 18 includes management module 100,
> memory 102, telecommunication interface modules (TIMs) 104,
> echo cancellation modules 106, compression modules 108,
> packetization modules 110, and network interface modules 112.
> Management module 100, TIMs 104, echo cancellation modules
> 106, compression modules 108, packetization modules 110, and
> network interface modules 112 represent functional elements that
> are reasonably self-contained so that each may be designed,
> constructed, and updated substantially independent of the others.

(Whitcher; col. 8, lines 28-41; emphasis added). As is apparent, Whitcher gives no indication at

all of a second gateway providing packets via a second network (allegedly customer premises

14). Therefore, for at least this reason claim 1 is allowable.

Unlike the teaching of Whitcher, the gateway apparatus of the Applicant's invention

determines network-state information of a second network based on packets that are received

from *a second gateway apparatus via the second network*. Specifically, in the gateway

apparatus of the Applicant's invention, the network-state estimation unit determines network-

state information of the second network *based on packets that are received from a second

gateway apparatus via the second network*, and the determination unit controls, before the

transmission of the packets, at least the encoding of the voice data by the encoding processing

unit based on the network-state information of the second network determined by the network-

state estimation unit.

Specifically, the network-state information of the second network is any of a packet loss

ratio (as in claim 6), a packet arrival time jitter (as in claim 8), a TTL value (as in claim 10), an

estimated network delay and estimated voice data quality level (as in claim 13). The controlling

of the encoding of the voice data in the gateway apparatus of the applicant's invention includes

altering a type of the encoding, or selecting one of non-voiced data compression option or non-

voiced data non-compression option.

Moreover, unlike the teaching of Whitcher, according to the Applicant's invention, when

the network-state information of the second network indicates high congestion, a suitable type of

the voice data encoding (the compression ratio is high) is selected so that the payload size can be

changed to a small size. Clearly, this is different from the teaching of Whitcher.

As described above, Whitcher does not disclose or suggest the above-mentioned features

of the invention of "determining network-state information of the second network based on

packets that are received form a second gateway apparatus via the second network", and

therefore for at least this reason the rejection of claim 1 should be withdrawn.

Claims 2 and 3 depend from claim 1 and are therefore allowable for at least the same

reasons as claim 1 is allowable.

Claim 17 includes features similar to those discussed above in regard to claim 1 and

therefore claim 17 is allowable for at least the same reasons as claim 1 is allowable.

Claims 4, 5, and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over

Whitcher in view of U.S. Patent No. 6,760,309 to Rochberger et al. (hereinafter referred to as

Rochberger). Applicants respectfully traverse.

The addition of Rochberger fails to cure the critical deficiency discussed above as regards

Whitcher as applied against claim 1, and therefore, since claims 4, 5, and 10 depend from claim

1, each of these claims is allowable for at least the same reasons as claim 1 is allowable.

Claims 6 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Whitcher in view of U.S. Patent No. 6,868,094 to Bordonaro et al. (hereinafter referred to as Bordonaro). Applicants respectfully traverse.

The addition of Bordonaro fails to cure the critical deficiency discussed above as regards Whitcher as applied against claim 1, and therefore, since claims 6 and 8 depend from claim 1, each of these claims is allowable for at least the same reasons as claim 1 is allowable.

Claims 7 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Whitcher in view of Bordonaro and further in view of U.S. Patent No. 6,816,464 to Scott et al. (hereinafter referred to as Scott). Applicants respectfully traverse.

The addition of Scott fails to cure the critical deficiency discussed above as regards Whitcher and Bordonaro as applied against claims 6 and 8, and therefore, since claims 7 and 9 depend from claims 6 and 8, respectively, each of these claims is allowable for at least the same reasons as their respective base claims are allowable.

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Whitcher in view of Rochberger and further in view of Scott. Applicants respectfully traverse.

The addition of Scott fails to cure the critical deficiency discussed above as regards Whitcher and Rochberger as applied against claim 10, and therefore, since claim 11 depends from claim 10, this claim is allowable for at least the same reasons as claim 10 is allowable.

Claims 12-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Whitcher in view of Scott. Applicants respectfully traverse.

The addition of Scott fails to cure the critical deficiency discussed above as regards Whitcher as applied against claim 1, and therefore, since claims 12-15 depend from claim 1, each of these claims is allowable for at least the same reasons as claim 1 is allowable.
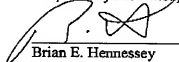
Claim 16 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Whitcher in view of Scott and further in view of U.S. Patent No. 6,466,548 to Fitzgerald (hereinafter referred to as Fitzgerald). Applicants respectfully traverse.

The addition of Fitzgerald fails to cure the critical deficiency discussed above as regards Whitcher as applied against claim 1, and therefore, since claim 16 ultimately depends from claim 1, each of these claims is allowable for at least the same reasons as claim 1 is allowable.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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